
Symptoms and actions

Explained here are some of the symptoms, diagnoses, and actions required to resolve MSDL card problems. Contact your Northern Telecom representative for further assistance.

Troubleshooting actions

These explain the causes of problems and the actions needed to return the card to an enabled state following installation or operational problems.

Symptom: The LED on the MSDL card is steadily lit.

Diagnosis: The MSDL card is disabled or faulty.

Action: Refer to “Manually isolating and correcting faults” on page 34.

or

Diagnosis: Peripheral software download failed because of MSDL card or system disk failure.

Action: If only one MSDL card has its LED lit, replace it.

Symptom: Autorecovery is activated every 30 seconds to enable the MSDL. MSDL300 messages appear on the console or TTY.

Diagnosis: The MSDL card has been system disabled because of an incorrect address.

Action: Verify the switch settings.

or

Diagnosis: The MSDL card has been system disabled because of peripheral software or configuration errors.

Action: Refer to [“System disabled actions” on page 38](#).

System disabled actions

These explain the causes of problems and the actions needed to return the card to an enabled state following system disabling.

SYSTEM DISABLED—NOT RESPONDING

Cause: The MSDL card is not installed or is unable to respond to the messages from the Meridian 1.

Action:

Check the MSDL messages on the console and take the action recommended. Refer to *X11 input/output guide* (553-3001-400).

Verify that the address switches on the MSDL are set correctly.

Verify that the card is properly installed in the shelf for at least 5 minutes.

If the problem persists, manually disable the card by entering the **DIS MSDL x**. Follow the steps described in “Previously operating MSDL cards” on page 35.

SYSTEM DISABLED—SELF-TESTING

Cause: The MSDL card has reset itself or Meridian 1 has reset the card to perform self-tests. Self-tests are in progress.

Action:

Wait until self-tests are completed. Under some circumstances, the self-tests may take up to 6 minutes to complete.

Take the action described in the appropriate section below (“SYSTEM DISABLED—SELF-TESTS PASSED” or “SYSTEM DISABLED—SELF-TESTS FAILED”).

SYSTEM DISABLED—SELF-TESTS PASSED

Cause: The MSDL card passed self-tests. Meridian 1 will automatically download the MSDL base code, if needed, and attempt to enable the card using autorecovery. If a diagnostic program (overlay) is active in the Meridian 1, the downloading of the MSDL base code occurs later.

Action:

Wait to see if the system will enable the card immediately. If the MSDL is enabled, no further action is necessary.

If the MSDL base code download fails five times, autorecovery stops. The following appears in response to the **STAT MSDL x** command;

```
MSDL 10: SYS DSBL—SELFTTEST PASSED
NO RECOVERY UNTIL MIDNIGHT: FAILED BASE DNLD 5 TIMES
SDI  10  DIS  PORT 0
AML  11  DIS  PORT 1
DCH  12  DIS  PORT 2
AML  13  DIS  PORT 3
```

Error messages will usually indicate the problem in this case. See “Maintaining the MSDL” on page 31.

SYSTEM DISABLED—SELF-TESTS FAILED

Cause: The card did not pass self-tests. These tests repeat five times. If unsuccessful, autorecovery stops until midnight unless you take action.

Action:

Allow the system to repeat the self-tests.

If self-tests fail repeatedly, disable the card using the **DIS MSDL x** command and replace the card.

SYSTEM DISABLED—SRAM TESTS FAILED

Cause: After self-tests passed, Meridian 1 attempted to perform read/write tests to the shared RAM on the MSDL and detected a fault. The shared RAM test will be repeated five times, and, if unsuccessful, autorecovery will not resume until midnight unless you take action.

Action:

Allow the system to repeat the self-tests.

If self-tests fail repeatedly, disable the card using the **DIS MSDL x** command and replace the card.

SYSTEM DISABLED—OVERLOAD

Cause: The Meridian 1 received an excessive number of messages from the MSDL card in a certain time. If the card invokes overload four times in 30 minutes, it exceeds the recovery threshold as described in “SYSTEM DISABLED—RECOVERY THRESHOLD.” The system resets the card, invokes self-tests, and attempts to enable the card. The problem may be due to excessive traffic on one or more MSDL ports. Traffic load redistribution may resolve this condition.

Action:

Check the traffic report, which may indicate that one or more MSDL ports are handling excessive traffic.

By disabling each port, identify the port with too much traffic and allow the remaining ports to operate normally. Refer to “Maintaining the MSDL” on page 31. If the problem persists, place the card in the manually disabled state by the **DIS MSDL x** command and follow the steps in “Previously operating MSDL cards” on page 35.

SYSTEM DISABLED—RESET THRESHOLD

Cause: The Meridian 1 detected more than four MSDL card resets within 10 minutes. The system attempts to enable the card again at midnight unless you intervene.

Action:

Place the card in the manually disabled state with the **DIS MSDL x** command and follow the steps in “Previously operating MSDL cards” on page 35.

SYSTEM DISABLED—FATAL ERROR

Cause: The MSDL card encountered a fatal error and cannot recover. The exact reason for the fatal error is shown in the MSDL300 error message output to the console of TTY when the error occurred.

Action:

Check the MSDL300 message to find out the reason.

Alternatively, display the status of the MSDL, which also indicates the cause of the problem, with the **STAT MSDL x** command and check the information to find the cause of the fatal error.

Allow the system to attempt recovery. If this fails, either by reaching a threshold or detecting self-test failure, place the MSDL in the manually disabled state with the **DIS MSDL x** command and follow the steps in “Previously operating MSDL cards” on page 35.

SYSTEM DISABLED—RECOVERY THRESHOLD

Cause: The Meridian 1 attempted autorecovery of the MSDL card more than five times within 30 minutes and each time the card was disabled again. The system attempts to enable the card again at midnight unless you intervene.

Action:

Place the MSDL card in a manually disabled state with the **DIS MSDL x** command and follow the steps in “Previously operating MSDL cards” on page 35.